

STATE OF MARYLAND

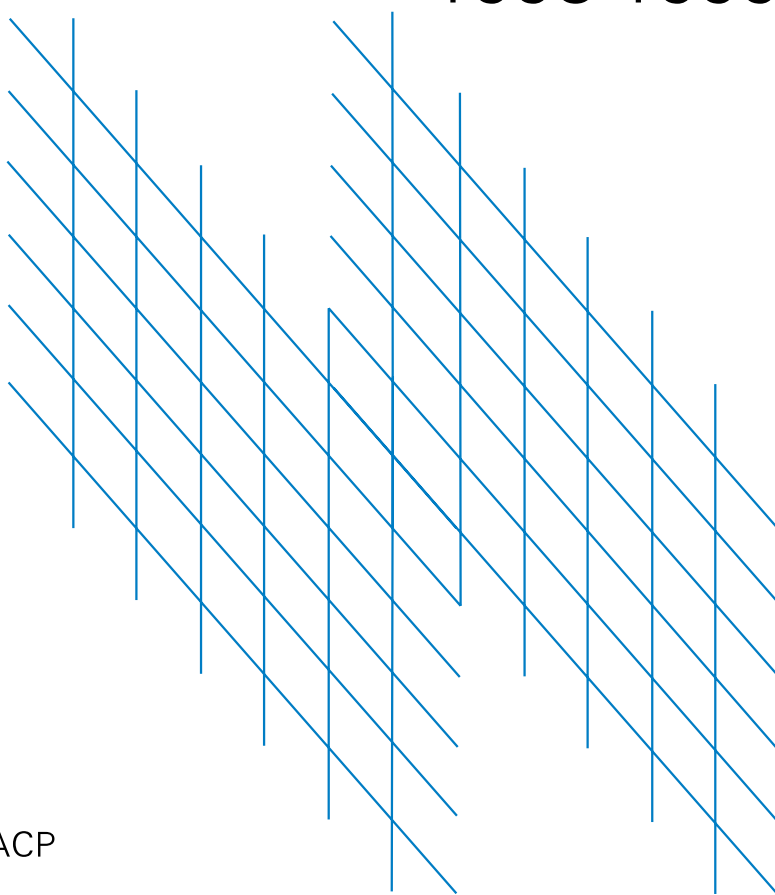


MARYLAND  
HEALTH CARE  
COMMISSION

# Practitioner Utilization

## Trends for **Patients in Traditional Medicare**

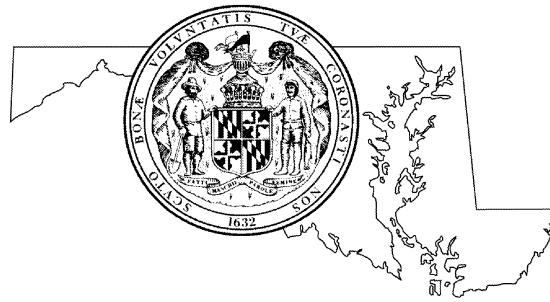
### 1998-1999



Released June 2001

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## EXECUTIVE SUMMARY

***Practitioner Utilization: Trends for Patients in Traditional Medicare, 1998-1999*** presents information on the use of services by Maryland Medicare beneficiaries. Information presented in the report is based on the analysis of the 1998 and 1999 Medical Care Data Base, subset to reflect the services provided to Maryland residents aged 65 and older with Supplemental Medicare Insurance (Medicare Part B). The analyses reflect the experience of about 440,000 Medicare beneficiaries that received practitioner health care services. This report focuses exclusively on Medicare; a companion report, ***Practitioner Utilization: Trends within Privately Insured Patients, 1998-1999*** presents information on utilization of services by that population.

Of the elderly insured by Medicare in 1999, approximately 87 percent were covered through the traditional program, with the remaining 13 percent covered by Medicare+Choice.<sup>1</sup> ***The volume of elderly Medicare patients in the MCDB increased by 1.3 percent between 1998 and 1999***, fueled by a 1 percent growth in elderly residents and by beneficiaries who transferred into traditional coverage from Medicare+Choice. Although females continue to comprise the majority (62 percent) of these elderly patients in 1999, ***the number of male Medicare patients who received practitioner care rose 2.2 percent, while the growth in female patients was just 0.7 percent***. The higher relative growth in male patients occurred in every region of the state, indicating that elderly males were somewhat more likely to obtain health care in 1999 than in 1998. ***Increased access to care by males was also observed in the non-elderly, privately insured patient population, making it a trend among all insured Maryland males regardless of age.***

The annual expenditure per patient for practitioner services increased in 1999 due to greater utilization of practitioner services by the average patient as well as higher payment per service. ***The annual expenditure for the typical Medicare patient rose 8.8 percent from \$953 in 1998 to \$1,037 in 1999***. The areas of the state with the lowest median expenditures per patient in 1999, the Eastern Shore and Western Maryland, exhibited the highest growth rates, 10.6 and 9.5 percent, respectively. Rural areas exhibited the lowest medians due to lower Medicare reimbursement rates for rural practitioners and relatively higher concentrations of low-income elderly, who tend to obtain less care. Using a standardized unit of care, work relative value units (RVUs), residents of these rural regions have median annual per patient utilization rates of 12.0 and 13.0 work RVUs, respectively, compared to 16.6 for those living in the National Capital Area. ***Median annual work RVUs per patient grew by 4.5 percent in 1999, while average payment per work RVU grew by 1.9 percent***. Like the pattern in median payment per patient, the rural areas had the lowest average payment per RVU but exhibited the highest percent increases.

***More than three-fourths of patients received practitioner care for Cardiovascular conditions***, especially hypertension (more than half of all patients) and disorders of lipid metabolism (e.g., high cholesterol), which affected nearly 15 percent more patients in 1999 than in 1998. ***The number seen for Examination & screening rose by nearly 10 percent, suggesting greater use of preventive and early diagnostic care by beneficiaries***. Patients treated for osteoporosis exhibited one of the highest rates of increase, nearly 21 percent. ***The number of patients who obtained care in the form of Procedures grew by about one-fourth in 1999, driven by a 40 percent increase in those receiving ambulatory or minor procedures***. Use of Evaluation & Management Services in emergency rooms and for ophthalmology also grew significantly. Regarding the specialties' shares of all practitioner payments, in both years Internal Medicine had the highest payment share, followed by Cardiology, Radiology, Ophthalmology, and Oncology, but Oncology exhibited the largest gain of any specialty, from 6.2 percent in 1998 to 7.0 in 1999.

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<sup>1</sup> Maryland Health Care Commission. *Maryland Health Insurance Coverage Through 1999*, p. 5; 12 / 2000.

## 1. INTRODUCTION

Each year since 1996 the Maryland Health Care Commission (MHCC) presents a Practitioner Report that describes the use of insured practitioner services by residents and the associated payments by insurance companies and recipients for those services, as required by Health-General Article §19-1502(c)(7). In order to provide the Commission with data on fees and utilization patterns, insurance companies and health maintenance organizations (HMOs) meeting certain criteria<sup>2</sup> are required to submit information to the Commission under COMAR 10.25.06 on the health care practitioner services provided to Maryland residents. The Maryland Medical Care Data Base (MCDB) is created from these submissions. This source is supplemented with Medicare claims information on the use of practitioner services by Medicare beneficiaries with Medicare Part B coverage (which covers practitioner services) who are enrolled in traditional Medicare.

The analyses presented in this Chartbook summarize the usage of and payments for practitioner medical care under traditional Medicare, which covers the overwhelming majority of Maryland's over age 65 population.<sup>3</sup> Population subgroups and practitioner services not represented in the analysis include:

- Maryland residents enrolled in Medicare+Choice, Medicare's HMO-based coverage.
- Maryland residents who are 65 years or older who have primary insurance through a private insurance plan.
- Maryland residents who are enrolled in Medicare but: (i) are under age 65 or (ii) do not have Part B coverage.
- Maryland residents who are 65 years or older and are uninsured.<sup>4</sup>
- Practitioner services not covered under Medicare part B.

This year the Medicare component of the Practitioner Report highlights more detailed information available at the MHCC web site.<sup>5</sup> **Chapter 1** presents an overview of the Chartbook and includes state population demographic characteristics, insurance coverage and physician supply. **Chapter 2** examines the changes that occurred from 1998 to 1999 in usage of and payments for practitioner medical care, both statewide and by region of the state. Figure 1-1 indicates how the 24 counties of Maryland are divided into the five regions used in these analyses. The chapter begins with a brief description of patient demographics, specifically the gender and age distributions of the recipients of care. This Chartbook examines changes in spending for practitioner services that includes spending in aggregate and on a per capita basis, as well as payment per work relative value unit (RVUs)<sup>6</sup>. The distribution of medical conditions

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<sup>2</sup> The company is licensed in the state of Maryland and collects more than \$1 million in health insurance premiums from state residents.

<sup>3</sup> The Commission is releasing a companion Chartbook titled, **Practitioner Utilization: Trends Within Privately Insured Patients, 1998-1999**. That Chartbook presents information on the practitioner utilization by insured residents under age 65 with private insurance coverage.

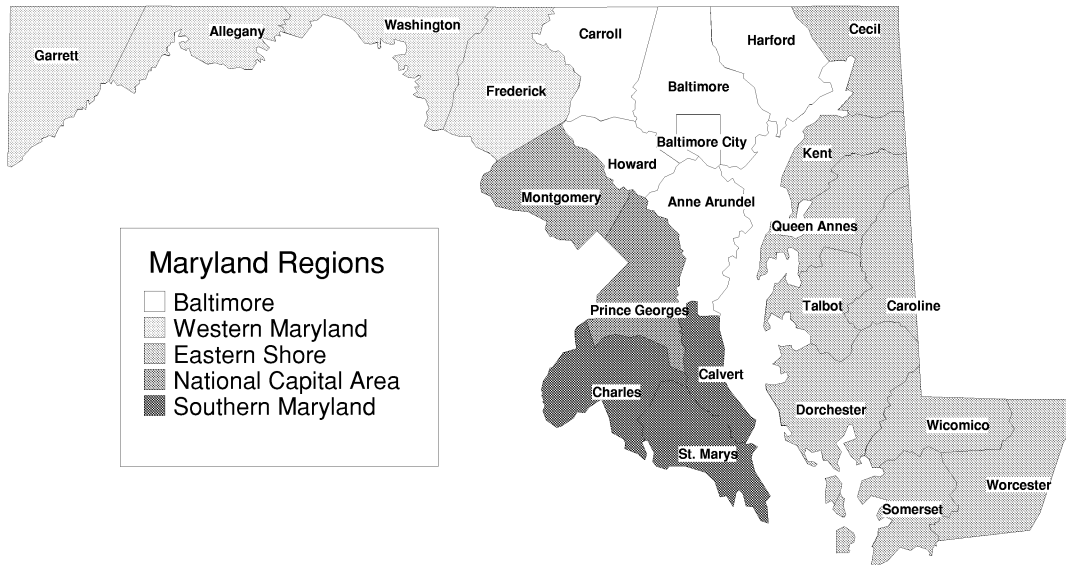
<sup>4</sup> About 1 percent of the state's elderly residents are estimated to be uninsured.

<sup>5</sup> [www.MHCC.state.md.us/practitioner](http://www.MHCC.state.md.us/practitioner) 99

<sup>6</sup> Work relative value units (RVUs) are a measurement system that makes it possible to compare the resource intensities of different procedures. Specifically, the work RVU for a service reflects the relative amount of average time taken to perform the service, the difficulty of the work, and the level of training

across patients receiving practitioner services is also provided. Information on the types of practitioner services delivered includes the likelihood that a patient received the service and the payment and service shares associated with each type of service.<sup>7</sup> The proportion of total practitioner payments distributed to the various medical specialties and other types of providers concludes the chapter.

**Figure 1-1: Maryland Regions**



**Notes:**

- All years reflect calendar years unless otherwise indicated.
- Numbers in the text and tables may not add to totals because of rounding.

and expertise required to perform the work. For a more complete description of RVUs, see Maryland Health Care Commission, *Practitioner Expenditures & Utilization: Experience from 1998*, page 8, available at [www.MHCC.state.md.us/database/exputil1998/\\_exputil.htm](http://www.MHCC.state.md.us/database/exputil1998/_exputil.htm).

<sup>7</sup> Certain types of services are excluded from the analysis. For example, the analytic data used for this Chartbook does not provide information on: (1) encounters for non-Maryland residents who received health care in Maryland, (2) institutional services (hospital inpatient and outpatient, nursing homes, hospice care), (3) home health care services, (4) dental services, (5) durable medical equipment, and (6) non-covered services. These data only include services and payments through primary insurance coverage. Moreover, while the data are generally complete and of high quality, there are invalid or missing data for some data fields. Such missing values for age, region, type of service or physician specialty lead to slight differences across tables and figures in the number of recipients, services, and payments.

## State Population Characteristics and Physician Supply

Summary information on the characteristics of Maryland's population aged 65 and over, insurance coverage for the entire state population, and the supply of physicians is presented below. See Table 1-1.

- The population of those 65 years of age or greater was 597,000 in 1999. This population group grew by nearly 1 percent. The distribution of elderly across the regions differs from that of younger Maryland residents. The elderly are relatively less common in NCA and Southern Maryland and more likely in the other areas, especially the Eastern Shore.
- Females comprised 59.1 percent of the 65 and older population in 1999, compared to 40.9 percent for males. Adult females are more likely to obtain medical care than are their male counterparts and, therefore, constitute the majority of patients in either the elderly or non-elderly populations. However, among the elderly, expenditures per capita are higher for males than for females<sup>8</sup> in part because their health care behavior makes them more likely to obtain preventive care and treatment in the early stages of an illness compared to males.
- MHCC estimates that 96 percent of the state's elderly have health insurance coverage through Medicare, 3 percent have coverage through other sources (e.g., their employer or their spouse's employer), and 1 percent is uninsured. Additionally, the vast majority of Medicare enrollees have secondary health insurance (e.g., Medigap policies, Medicaid).<sup>9</sup>
- In 1999, the proportion of Maryland residents with Medicare (either traditional or Medicare+Choice) grew by 1.2 percent, slightly above the overall growth in the number of elderly. The discrepancy results from enrollment in Medicare by both disabled residents younger than 65 and residents older than 65 who remained employed and postponed their enrollment in Medicare because they were able to obtain less expensive/more comprehensive coverage through their employer.
- In all regions but Baltimore, the percent of the population with traditional Medicare coverage increased, ranging from 2.5 percent in the NCA to 7.5 percent in the Eastern Shore region. It decreased by 0.5 percent in the Baltimore area, but this decline was more than offset by increased enrollment in Medicare+Choice, Medicare's HMO product. In all other regions, enrollment in Medicare+Choice declined as a result of insurers dropping out of the program.
- The regions differ in supply of physicians. The relatively low numbers of physicians in Western Maryland, Eastern Shore, and especially Southern Maryland may well contribute to lower usage of practitioner services, especially among the elderly who are less likely to travel to obtain health care than are younger patients. Estimates of physician supply in Maryland's metropolitan areas are similar to those found in neighboring metropolitan areas of Philadelphia, New York, and Boston.

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<sup>8</sup> Health Care Access and Cost Commission. *Practitioner Expenditures and Utilization: Experience from 1997*, p. 16, June 1999.

<sup>9</sup> Maryland Health Care Commission. *Maryland Health Insurance Coverage Through 1999*, p. 5, December 2000.

**Table 1-1: Demographic and Insurance Characteristics and Trends, 1999**

	Maryland Total	NCA	Baltimore Area	Western Maryland	Southern Maryland	Eastern Shore
<b>1999 Population, Age 65 +</b>	<b>596,960</b>	<b>161,590</b>	<b>301,090</b>	<b>54,210</b>	<b>24,120</b>	<b>55,950</b>
Percent change 1998-1999	0.9%	1.0%	0.7%	1.1%	3.0%	0.7%
Regional Distribution	100.0	27.1	50.4	9.1	4.0	9.4
Gender Distribution*						
Males	40.9	40.6	40.4	40.6	43.2	42.8
Females	59.1	59.4	59.6	59.4	56.8	57.2
<b>Insurance Characteristics of the Population, 1999</b>						
Percent with Insurance Coverage	87.8%	88.8%	87.7%	85.2%	91.5%	84.0%
Private non-HMO	33.2	35.7	30.8	33.2	49.0	26.5
Private HMO	32.0	34.9	31.8	28.5	25.2	30.4
Medicare, Traditional	10.9	8.9	11.5	13.7	8.3	14.6
Medicare+Choice (HMO)	1.7	1.2	2.3	0.6	0.7	1.8
Other (Medicaid, CHAMPUS)	10.0	8.1	11.4	9.2	8.3	10.7
Percent change 1998-1999:	2.1	3.1	1.2	1.2	4.6	2.3
Private non-HMO	4.2	3.3	3.3	-3.8	25.3	4.8
Private HMO	-1.6	1.4	-2.2	4.9	-21.2	-2.8
Medicare, Traditional	1.9	2.5	-0.5	5.6	7.2	7.5
Medicare+Choice (HMO)	-3.1	-0.5	6.3	-45.9	-25.5	-30.0
Medicare Total (Traditional or +Choice)	1.2	2.1	0.5	1.3	3.6	1.4
<b>Physician Supply, 1997</b>						
Total non-federal patient care physicians per 100,000 population	312	355	356	160	104	155

\* Regional distributions are 1998 data.

Sources:

MHCC, *State Health Care Expenditures: Experience from 1999*, page 27.

Maryland Vital Statistics Annual Report, Table 2A, 1998 (published) and 1999 (forthcoming).

MHCC calculations based on U.S. Department of Health and Human Services, Health Resources and Services Administration, Bureau of Health Professions, Area Resource File: February 1999 Release.



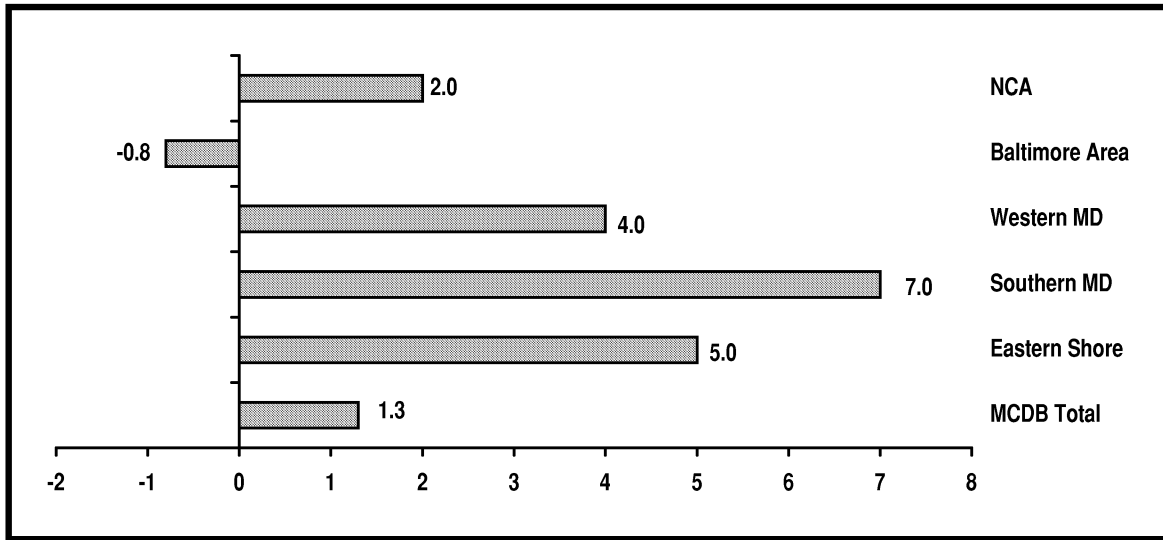
## **2. TRENDS IN TRADITIONAL MEDICARE PATIENTS, 1998-1999**

### **Patient Demographics**

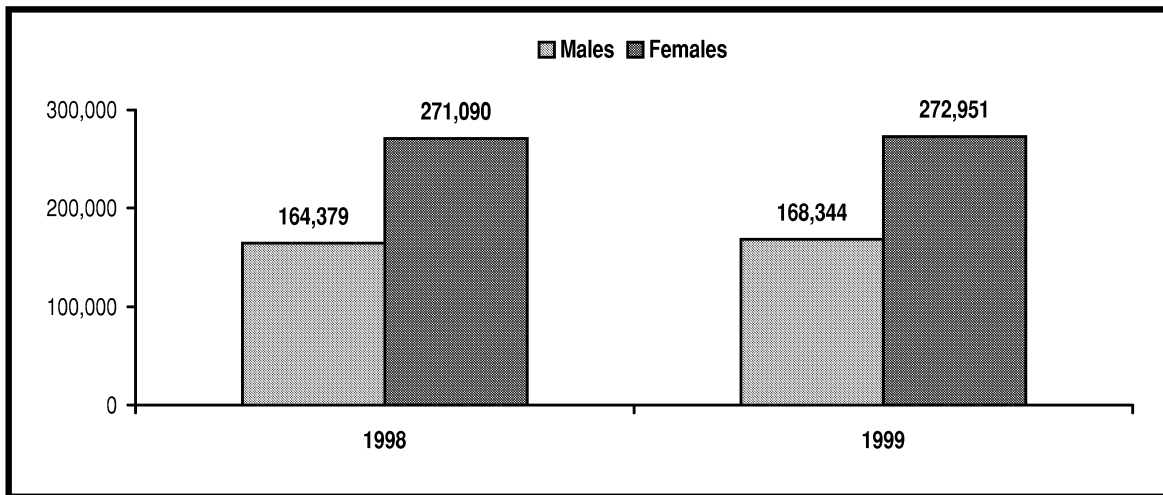
This section explores the demographic characteristics and changes from 1998 to 1999 for Maryland patients enrolled in traditional Medicare. Only patients 65 and older who have Medicare Supplemental Medical Insurance (Part B) coverage (which covers practitioner services) are included in this analysis. See Figures 2-1 and 2-2.

- The number of Maryland patients covered under traditional Medicare/Part B increased by 1.3 percent between 1998 and 1999. This rate of growth is consistent with but below the 1.9 percent growth in traditional Medicare enrollees in Maryland reported in the preceding section. The difference occurs because not all beneficiaries use services, and the reported growth in enrollees includes persons not included in this analysis (i.e., the disabled under age 65 and elderly beneficiaries who chose not to purchase Part B coverage).
- The number of traditional Medicare patients who obtained practitioner services grew in all regions except the Baltimore area (-0.8 percent), where there was a shift of enrollees into Medicare+Choice. The largest relative increase in patients using practitioner services occurred in Southern Maryland at 7 percent, nearly the same as the region's growth in traditional Medicare beneficiaries. The Eastern Shore, which had the largest regional growth in traditional Medicare beneficiaries, exhibited an increase in patients of 5 percent. The gap is mainly attributable to higher percentages of disabled enrollees (such as those with AIDS) and elderly beneficiaries without Part B than in Southern Maryland. In terms of absolute numbers, the NCA and Western Maryland each gained more than 2,200 patients in 1999, considerably more than the other regions (data not shown).
- Given females' higher proportion in the elderly population and their greater willingness to seek medical care, it is not surprising that they comprised the majority (61.9 percent) of traditional Medicare patients in 1999. However, the number of male Medicare patients rose 2.2 percent between 1998 and 1999 from 164,379 to 168,344, while the growth in female patients was just 0.7 percent. The higher relative growth in male patients indicates that elderly males were somewhat more likely to obtain practitioner services in 1999 compared to 1998. This apparent change in male behavior occurred in every region of the state (data not shown).
- The age distribution of patients did not change from 1998 to 1999 (data not shown). In each year, at least 25 percent of the patients were between 65 and 70, the median age was 75, and 25 percent were 81 years of age or older. Those age 86 and older comprise 10 percent of the patients; 5 percent of the patients are at least 90 years of age.

**Figure 2-1: Percent Change in Numbers of Patients Overall and by Region, Traditional Medicare, 1998-1999**



**Figure 2-2: Patient Population by Gender, Traditional Medicare, 1998-1999**

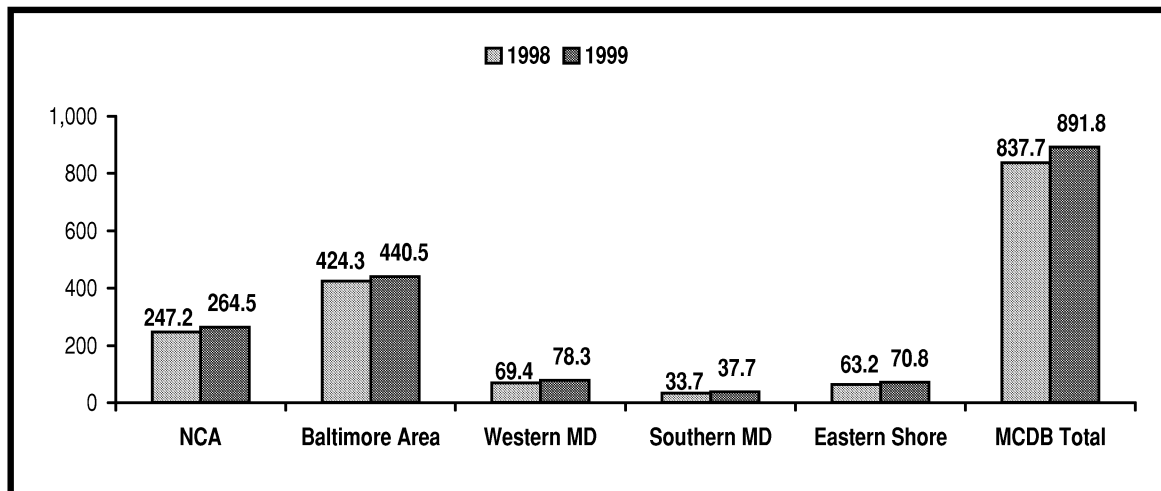


## **Spending on Practitioner Services**

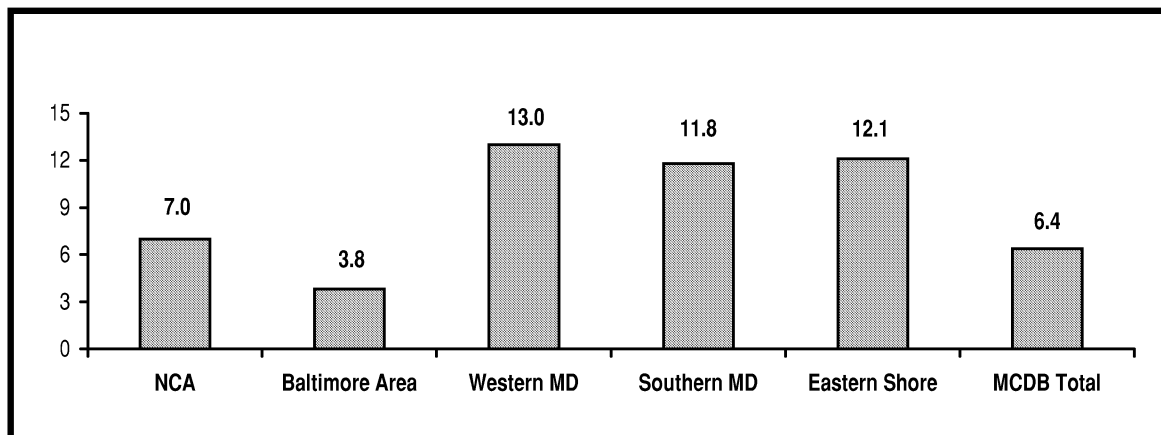
This section examines changes in total spending (including required coinsurance payments by patients or a secondary insurer) for practitioner services from 1998 to 1999 for traditional Medicare patients in the MCDB. See Figures 2-3 and 2-2.

- The total expenditures for practitioner services used by Maryland's traditional Medicare residents were \$892 million in 1999. These payments were 6.4 percent higher than in 1998.
- Western Maryland exhibited the largest increase in payments of 13.0 percent, with slightly smaller increases in the Eastern Shore region (12.1 percent) and Southern Maryland (11.8 percent). In the NCA region these payments increased by 7.0 percent, but the smallest growth was in the Baltimore area (3.8 percent). The rate of increase in payments exceeded the growth in patients in every region, but the difference was greatest in Western Maryland, where payments increased by 13 percent and patients by 4 percent.
- In 1999 the largest practitioner payments by patient residence were in the Baltimore area (\$441 million). The residents of this region, who comprised half of Maryland's traditional Medicare patients, accounted for an equal share of total spending. Payments for NCA residents, \$265 million, constituted 30 percent of expenditures, although just 26 percent of the patient total resided in the region. Spending was substantially less in the other three regions. The shares of patients and expenditures in the Baltimore and Southern Maryland regions were nearly equal. However, for each of the rural regions, Western Maryland and Eastern Shore, the share of patients exceeded the spending share.
- The disparity in regional patient and payment shares are partially attributable to Medicare payment rates that differ by region. Additionally, utilization patterns for less affluent patients and those residing in rural areas differ from those of other patients. Medicare payment rates in Maryland are highest for practitioners in the NCA and lowest for providers in non-metropolitan areas of the state. In rural areas, where independent laboratories are less common than in metropolitan areas, lab services are more likely to be provided by hospital outpatient departments. Since hospital outpatient department services are not included in Medicare's Part B practitioner files, use of lab services by rural residents is likely to be understated in our analyses. And because practitioner services covered under traditional Medicare require a 20 percent coinsurance payment by the patient, beneficiaries with low incomes – who are more common in the state's rural areas – tend to curb their use of services relative to more affluent enrollees.

**Figure 2-3: Trends in Practitioner Spending (\$ millions) by Region of Patient Residence, Traditional Medicare, 1998-1999**



**Figure 2-4: Percent Change in Practitioner Spending by Region of Patient Residence, Traditional Medicare, 1998-1999**



## Annual Expenditure per Patient and Payment per Unit of Care

This section examines how expenditures per patient and per unit of care changed between 1998 and 1999. Table 2-1 summarizes the annual expenditure for practitioner services covered under Medicare Part B insurance – including the coinsurance payments required of the patient or a secondary insurer – for the typical patient insured through traditional Medicare. Tables 2-2 and 2-3 present the annual number of work Relative Value Units (RVUs) received by the typical patient and the mean payment per RVU classified by region of patient residence. Use of work RVUs enables comparisons of utilization and payment in terms of a standardized unit of care. Service volume and payment per service comparisons are less informative since the same number of services may reflect very different levels of care and reimbursement and result in wide variations in per unit payment. We would expect payments per RVU to reflect Medicare payment policies that reimburse: (i) practitioners in metropolitan areas of the state at higher rates, with NCA rates generally being highest; and (ii) some specialties more generously than others.

- For traditional Medicare patients residing in Maryland, the median payment per patient for practitioner services rose 8.8 percent from \$953 in 1998 to \$1,037 in 1999.
- Per capita reimbursements reflect the amount and type of care received by patients, as well as the reimbursement rates that are in effect. The reimbursement rates and the amount and type of care will differ by region. Because significant coinsurance payments are required for practitioner care, low-income Medicare patients obtain less care than their more affluent counterparts. Consequently, regions having higher concentrations of low-income elderly (i.e., Western Maryland and Eastern Shore) should have lower per capita utilization. In keeping with expectations, the Western Maryland and Eastern Shore areas had much lower 1999 median expenditures than the other regions, in part because of lower service use by their residents and in part due to lower Medicare payment rates for Maryland practitioners located in counties outside of the metro Baltimore and metro DC areas. The highest median payment in 1999 occurred for patients residing in NCA, where the reimbursement rates and service utilization rates are highest. The Baltimore area ranked second, but the median expenditure for patients in Southern Maryland was nearly the same, due to extensive use of practitioners located in NCA and a level of service use by the usual patient that is slightly greater than in the Baltimore area.
- Except for Southern Maryland, the relative growth in median payment was inversely related to the size of the median expenditure. The areas with the lowest median expenditures in 1999, the Eastern Shore and Western Maryland, exhibited the highest growth rates, 10.6 and 9.5 percent, respectively. Southern Maryland, at 7.0 percent, had a growth rate below that of the NCA. Practitioner utilization, in terms of RVUs, increased for the usual patient in 1999 in every region of the state. The rise in service use ranged from 5.5 percent for patients residing on the Eastern Shore to 4.3 percent for the usual patient in Western Maryland.
- Overall, the mean payment per work RVU rose by 1.9 percent in 1999. Like the pattern for median payment per capita, areas with lower mean payments exhibited higher growth rates, except for the Baltimore area. The higher rates of growth in payment per RVU for Western Maryland and the Eastern Shore help to explain the higher percent changes in per capita spending in these regions. The NCA, with its relatively high reimbursement rates for practitioners, had the highest mean payment per work RVU of any of the regions at \$73, followed by Southern Maryland (\$69) and Baltimore (\$68).

**Table 2-1: Median Annual Payment per Patient for Practitioner Services by Region, Traditional Medicare, 1998-1999**

Region	Median Payment per Patient <sup>1</sup>		
	1998	1999	% change
NCA	\$1,141	\$1,234	8.2%
Baltimore Area	956	1,045	9.3
Southern Maryland	975	1,043	7.0
Western Maryland	760	832	9.5
Eastern Shore	697	771	10.6
<b>MCDB Total</b>	<b>953</b>	<b>1,037</b>	<b>8.8</b>

**Table 2-2: Median Annual Number of Work RVUs per Patient by Region, Traditional Medicare, 1998-1999**

Region	Median Work RVUs per Patient		
	1998	1999	% change
NCA	16.0	16.6	4.1%
Baltimore Area	14.4	15.1	5.1
Southern Maryland	14.6	15.2	4.5
Western Maryland	12.4	13.0	4.3
Eastern Shore	11.4	12.0	5.5
<b>MCDB Total</b>	<b>14.3</b>	<b>15.0</b>	<b>4.5</b>

**Table 2-3: Mean Payment per Work RVU by Region, Traditional Medicare, 1998-1999**

Region	Mean Payment per Work RVU <sup>1</sup>		
	1998	1999	% change
NCA	\$72	\$73	2.1%
Baltimore Area	67	68	1.5
Southern Maryland	68	69	2.2
Western Maryland	64	66	2.8
Eastern Shore	64	66	2.7
<b>MCDB Total</b>	<b>68</b>	<b>69</b>	<b>1.9</b>

<sup>1</sup> Dollar values are rounded to the nearest whole dollar. Percentage changes are based on unrounded, dollar and cents values, so the percentage change shown may deviate from the percentage change in the whole dollar amounts.

## Medical Conditions for Which Patients Sought Treatment

This section discusses the trend in medical conditions and external factors (ICD-9 Diagnosis Codes) associated with care provided to traditional Medicare patients by practitioners. The unique diagnosis codes<sup>2</sup> for all practitioner services (excluding radiology and lab) received by a patient were classified using Expanded Diagnosis Clusters (EDCs)<sup>3</sup>, and their summary categories, Major Expanded Diagnosis Clusters (MEDCs), shown in boldface in Table 2-4.<sup>4</sup>

- In 1999 more than 3/4 of all patients received care for Cardiovascular conditions, particularly hypertension, which was associated with over half of all patients. Disorders of lipid metabolism (e.g., high cholesterol) affected about 36 percent of the patients in 1999 up nearly 15 percent from 1998. The other most common reasons for obtaining practitioner services in 1999 were Examination & screening, which includes surgical aftercare (58 percent), and Ophthalmologic disorders (48 percent).
- Most MEDCs exhibited increases in patient volume above the 1.5 percent increase in patients overall. The largest relative increases occurred for Examinations and screenings (9.8 percent), Endocrinologic/metabolic conditions (7.5 percent), Blood diseases (8.7 percent), and Female reproductive related conditions (7.6 percent).
- Growth in patients seen for general medical exams drove the high rate of increase in the Examination and screening MEDC, suggesting greater use of preventive and early diagnostic care by beneficiaries. More than half of all patients in 1999 received a general medical exam (data not shown).
- The growth in Endocrinologic/metabolic conditions was driven by increases in patients with diabetes, thyroid disease, and, especially, osteoporosis, which grew by nearly 21 percent, faster than any other EDC category. Osteoporosis is often the antecedent of life-threatening conditions for the elderly, including hip fractures. Women are four times more likely than men to develop the disease. The rise in patients treated for Blood diseases reflects a nearly 10 percent increase in the number of patients treated for iron deficiency and other anemias (data not shown).
- The growth in patients with Female reproductive conditions resulted from a 22 percent increase in female beneficiaries treated for vaginitis/vulvitis/cervicitis infections (data not shown). Among male patients, about 9 percent more were seen for prostatic hypertrophy, implying that male beneficiaries were more likely to be screened and treated for prostate conditions in 1999 compared to 1998.
- Only a few MEDCs exhibited declines in patient volume in 1999. Among these were Psychosocial problems, which frequently go undiagnosed and, therefore, untreated in the elderly.

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<sup>2</sup> Each practitioner service contributed up to 3 different ICD-9 diagnosis codes.

<sup>3</sup> Christopher B. Forrest, MD, PhD, Health Services Research and Development Center, Johns Hopkins School of Public Health.

<sup>4</sup> Because it excludes recipients with only lab or radiology services or without valid diagnostic information, the growth rate reported in Table 2-4 differs from the overall 1.3 percent growth in patients reported earlier.

**Table 2-4: Trends in Numbers and Proportions of Recipients With Major Expanded Diagnosis Clusters (MEDCs) and Selected Expanded Diagnosis Clusters (EDCs), Traditional Medicare, 1998-1999**

Expanded Diagnosis Clusters	Number of Recipients		Percent of all Recipients	
	1999	Change 1999-98	1998	1999
<b>MCDB Total</b>	<b>437,160</b>	<b>1.5%</b>	<b>100.0%</b>	<b>100.0%</b>
<b>Cardiovascular conditions</b>	333,844	3.6	74.8	76.4
Hypertension	247,203	5.9	54.2	56.5
Ischemic heart disease	99,448	2.6	22.5	22.7
Congestive heart failure	51,572	2.5	11.7	11.8
Disorders of lipid metabolism (e.g., high cholesterol)	158,692	14.6	32.1	36.3
<b>Examination and screening</b>	251,518	9.8	53.2	57.5
<b>Ophthalmologic disorders</b>	209,359	1.7	47.8	47.9
Cataract, aphakia	147,340	1.5	33.7	33.7
Glaucoma	54,489	3.0	12.3	12.5
<b>Common surgical conditions</b>	183,775	2.8	41.5	42.0
<b>Orthopedic problems</b>	176,362	3.1	39.7	40.3
Degenerative joint disease	80,741	6.9	17.5	18.5
Low back pain	58,554	5.1	12.9	13.4
<b>Skin conditions</b>	175,555	4.1	39.1	40.2
Skin keratoses	54,730	7.8	11.8	12.5
Dermatophytoses	67,448	3.8	15.1	15.4
<b>Urinary and kidney conditions</b>	157,859	5.7	34.7	36.1
Prostatic hypertrophy	53,370	9.5	11.3	12.2
<b>Endocrinologic/metabolic conditions</b>	156,606	7.5	33.8	35.8
Diabetes mellitus	87,032	5.6	19.1	19.9
Osteoporosis	30,673	20.8	5.9	7.0
Thyroid disease	55,023	8.0	11.8	12.6
<b>General complaints</b>	135,499	-7.6	34.0	31.0
Chest pain	56,180	1.7	12.8	12.9
<b>Neurologic conditions</b>	131,941	1.9	30.1	30.2
<b>Pulmonary conditions</b>	126,963	3.4	28.5	29.0
Respiratory signs and symptoms	46,895	-6.3	11.6	10.7
Acute lower respiratory tract infection	66,226	9.1	14.1	15.1
Emphysema, chronic bronchitis, copd	49,497	1.4	11.3	11.3
<b>Gastrointestinal conditions</b>	124,789	3.6	27.9	28.5
<b>Rheumatologic conditions</b>	115,877	-2.1	27.5	26.5
Musculoskeletal signs and symptoms	84,181	-2.6	20.0	19.3
<b>Ear, nose, throat problems</b>	98,054	3.9	21.9	22.4
<b>Blood diseases</b>	76,329	8.7	16.3	17.5
<b>Cancer</b>	65,011	1.5	14.9	14.9
<b>Female reproductive related conditions</b>	55,206	7.6	11.9	12.6
<b>Psychosocial problems</b>	52,408	-0.5	12.2	12.0
<b>Allergic reactions</b>	45,364	6.1	9.9	10.4
<b>Facial and skin reconstruction</b>	33,070	1.9	7.5	7.6
<b>Infectious diseases</b>	13,766	5.2	3.0	3.1
<b>Poisoning</b>	7,767	-1.2	1.8	1.8
<b>Disorders of the mouth</b>	4,641	1.0	1.1	1.1
<b>Developmental and genetic disorders</b>	846	-2.9	0.2	0.2



## Common and Most Costly Services Received

This section explores trends in the use of specific types of services between 1998 and 1999. Table 2-5 documents (i) the proportion of traditional Medicare patients, total services, and total payments that are accounted for by each BETOS service category, and (ii) trends over these two years.

- The most common major BETOS category for traditional Medicare patients in 1999 – as measured by percent of recipients, percent of service volume, and percent of total payments – was Evaluation and Management Services (E&M). These services are common because they are used in conjunction with all phases of care: preventive, diagnostic, and therapeutic.
- Nearly all recipients of E&M obtained these services in an office setting, but considerable percentages of patients also received E&M for ophthalmology (40 percent), through consultations (39 percent), and in emergency rooms or for other specialty care (27 percent each). While the increase in the number of patients who received E&M services in 1999 matched the overall growth in number of patients (1.3 percent), the growth rates were considerably higher for patients receiving E&M in emergency rooms (6.6 percent) and for ophthalmology (5.5 percent).
- The actual volume of E&M services grew by 3.5 percent and the associated payments rose by more than 8 percent, above the overall 6.4 percent increase in practitioner payments reported in a previous section. Ophthalmology was the E&M sub-category for which service and payment volumes increased the most.
- In 1999 the number of patients that received Procedures increased by 24 percent to total nearly 78 percent of all patients. This large growth rate was driven by patients receiving ambulatory and minor procedures, who increased by 40 percent in 1999 to include 70 percent of all patients. The volume of ambulatory and minor procedures grew by nearly 27 percent and accounted for about 2/3 of all procedures performed in 1999. The payments for these services, however, grew by just 13 percent. Payments for all Procedures (29 percent of 1999 practitioner expenditures) grew by just 3 percent, less than for any other major BETOS category, while the Procedure volume (13 percent of all services) grew by 17 percent, the largest increase in service volume among the major BETOS categories.
- The number of Imaging services went up faster (4 percent) than the number of patients who received Imaging (2 percent). But payments for Imaging rose nearly twice as fast (8 percent) as the number of services. The most rapid rates of growth (patients, services, and payments) in types of Imaging were for advanced imaging (CAT and MRI) and ultrasound. The numbers of these services increased by about 9 percent each, while their associated payments rose by 11 percent and 7 percent, respectively. Standard imaging was far more common, being provided to nearly 2/3 of all patients in 1999.
- The growth in number of Tests far exceeded the rise in the number of patients tested (13 percent versus 2 percent), indicating an increase in the average number of tests being performed on a patient. A growth in the use of standard tests accounted for the higher testing volume.
- Payments for durable medical equipment, drugs administered by providers, and other services rose by 10.2 percent, even though the absolute number of recipients obtaining these types of services fell by 1.6 percent.

**Table 2-5: Percent Distribution of Recipients, Services, and Payments and Trends by  
Service Category, Traditional Medicare, 1998-1999**

<b>BETOS<sup>5</sup> Category</b>	<b>Share of Recipients 1999</b>	<b>Change in Number of Recipients</b>	<b>Percent of Services 1999</b>	<b>Change in Number of Services</b>	<b>Share of Total Payments 1999</b>	<b>Change in Total Payments</b>
<b>Evaluation &amp; Management Services</b>	<b>97.3%</b>	<b>1.3%</b>	<b>35.7%</b>	<b>3.5%</b>	<b>41.5%</b>	<b>8.3%</b>
In Office	88.7	1.7	17.7	3.1	15.9	10.0
In Hospital	20.7	1.5	6.8	3.0	10.1	3.5
In Emergency Room	27.2	6.6	1.3	7.4	2.2	13.6
At Home & Nursing Home	11.3	0.4	2.2	-0.1	2.2	3.9
For Mental Health	5.5	2.0	1.1	1.9	1.1	5.5
For Ophthalmology	40.0	5.5	2.3	10.0	2.5	23.0
For Other Specialty Care	26.8	3.0	1.4	4.2	1.7	4.1
For Consultation (requested)	38.8	3.7	2.9	4.6	5.9	8.6
<b>Procedures</b>	<b>77.5</b>	<b>24.0</b>	<b>13.1</b>	<b>16.9</b>	<b>29.3</b>	<b>3.2</b>
Ambulatory and Minor Procedures	70.1	40.1	8.6	26.7	7.5	13.3
Anesthesia	17.9	1.6	0.9	2.7	2.6	2.5
Major Cardiovascular Procedures	7.2	3.3	0.6	4.1	4.5	-1.0
Major Orthopedic Procedures	3.0	1.3	0.1	5.2	2.2	0.6
Major Other Procedures	6.1	3.4	0.3	1.9	2.7	-0.2
Eye Procedures	8.0	3.6	0.4	6.7	3.6	3.0
Oncology	2.3	4.9	1.1	-2.7	2.1	-2.9
Endoscopy	18.3	2.8	0.8	1.7	3.2	-1.7
Dialysis	0.8	3.0	0.4	8.6	0.9	2.1
<b>Imaging</b>	<b>72.2</b>	<b>2.0</b>	<b>11.8</b>	<b>4.1</b>	<b>13.2</b>	<b>7.7</b>
Standard Imaging	65.7	1.3	7.4	1.6	5.0	5.9
Advanced Imaging: CAT & MRI	23.0	6.1	1.4	9.4	4.3	11.0
Ultrasound	31.3	5.7	2.3	8.8	3.2	7.2
Imaging for Procedures	6.0	7.2	0.6	8.1	0.6	3.7
<b>Tests</b>	<b>82.6</b>	<b>1.8</b>	<b>34.9</b>	<b>12.6</b>	<b>7.5</b>	<b>4.2</b>
Standard Tests	72.4	1.9	29.5	14.7	4.3	7.9
Electrocardiograms, Stress Tests, EKG Monitoring	52.5	1.4	4.1	1.4	2.0	-2.1
Other Tests			1.4	5.8	1.2	2.6
<b>Other (DME, Provider Administered Drugs, Other Services)</b>	<b>23.5</b>	<b>-1.6</b>	<b>3.4</b>	<b>-13.5</b>	<b>8.5</b>	<b>10.2</b>

<sup>5</sup>Berenson-Eggers Type of Service (BETOS) CPT-4/HCPCS procedure code system, Health Care Financing Administration, available at <http://www.hcfa.gov/stats/BETOS/betos.htm>. Services that did not contain procedure codes recognized in the BETOS classification have been deleted.

## Trends in Payments to Different Practitioner Specialties

This section presents the proportions of practitioner expenditures received by different physician specialties and other practitioners who obtained at least 1 percent of total practitioner payments in 1999. Table 2-6.

- Primary care physicians practicing in Internal Medicine received a larger share of the total payments for practitioner services than did any other specialty, 14.9 percent in 1999. Other specialties with relatively high shares of total payments in 1999 included Cardiology (9.4 percent), Radiology (8.5 percent), Ophthalmology (7.1 percent), and Oncology (7.0 percent). These were also the top five ranked specialties by share of total payments in 1998.
- Nine physician specialties that receive at least 1 percent of total payments experienced growth in their payment shares from 1998 to 1999. Leading this group were Oncologists and Dermatologists, whose shares rose by 13.8 percent and 12.1 percent, respectively. Physicians specializing in Emergency Medicine also had a substantial increase in their payment share (7.3 percent).
- Among physician specialties with less than 1 percent of total practitioner payments in 1999 (data not shown), physicians specializing in Physical Medicine & Rehab expanded their payment share by 7.0 percent in 1999 to receive 0.8 percent of all practitioner payments. Rheumatologists, who also received 0.8 percent of all practitioner payments in 1999, had a growth in their payment share of 6.2 percent.
- On the other hand, physicians practicing in General Surgery, Psychiatry, and Thoracic Surgery experienced reductions in their shares of payments for practitioner services from 1998 to 1999. However, since the total payments to all specialties rose by 6.4 percent in 1999, a loss in market share does not necessarily imply an absolute reduction in the number of dollars received.
- Among non-physician health care professionals, all those receiving at least 1 percent of the practitioner payments in 1999 experienced a reduction in their payment share. The reduction was largest for Ambulance Services (-29 percent). Independent Laboratories and Podiatrists had much smaller declines in payment shares.
- Among non-physician health care professionals with less than 1 percent of practitioner payments in 1999 (data not shown), Nurse Practitioners (0.2 percent of 1999 payments) increased their payment share by 106 percent. The payment shares for Physical Therapists (0.2 percent) and Optometrists (0.5 percent) increased by 20 percent and 17 percent, respectively. And the payment shares for Psychologists (0.3 percent) and Nurse Anesthetists (0.5 percent) increased by 10 percent and 9 percent, respectively.

**Table 2-6: Trends in Share of Payments by Selected Practitioner Specialty,  
Traditional Medicare, 1998-1999**

Practitioner Specialties	Specialty's Share of Total Payments		Rate of Change in Payment Share <sup>6</sup>
	1998	1999	
Internal Medicine	15.0%	14.9%	-0.6%
Cardiology	9.3	9.4	1.6
Radiology	8.5	8.5	0.2
Ophthalmology	7.0	7.1	1.6
Oncology	6.2	7.0	13.8
Orthopedic Surgery	4.4	4.5	1.5
Urology	3.7	3.6	-2.0
General Surgery	3.9	3.6	-7.5
Family Practice	2.9	3.0	3.9
Gastroenterology	3.0	2.9	-3.6
Anesthesiology	2.8	2.6	-4.3
Pulmonary Disease	2.4	2.4	2.1
Dermatology	1.9	2.2	12.1
Podiatry	2.1	2.1	-1.3
Emergency Medicine	1.9	2.0	7.3
Thoracic Surgery	1.9	1.7	-8.6
Neurology	1.5	1.5	-0.6
Nephrology	1.2	1.2	-0.1
Pathology	1.1	1.1	-2.1
Otology/Laryngo/Rhino/Otolaryngology	1.0	1.0	-1.6
Psychiatry	1.1	1.0	-7.9
Independent Laboratory	3.7	3.6	-2.6
Ambulance Services	3.3	2.3	-29.1
ALL OTHER SPECIALTIES	10.2	10.8	5.9
<b>Total Payments to All Specialties</b>	<b>\$838,123,088</b>	<b>\$892,101,156</b>	<b>6.4</b>

<sup>6</sup> The percent of total payments columns is rounded to one decimal place, but the rate of change column is based on exact, non-rounded data.

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